

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION**

LONE STAR TECHNOLOGICAL
INNOVATIONS, LLC,

Plaintiff,

v.

ASUSTEK COMPUTER, INC.

Defendant.

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Civil Action No. 6:19-cv-00059-RWS

LEAD CASE

**PLAINTIFF LONE STAR TECHNOLOGICAL INNOVATION, LLC'S
REPLY TO DEFENDANT'S CLAIM CONSTRUCTION BRIEF**

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Plaintiff Lone Star files this reply brief in order to address a number of arguments made by Defendants in their Responsive Claim Construction Brief (“Response”) (Dkt. 88).

I. PLAINTIFF’S REPLY

Defendants’ incorrect constructions and invalidity arguments, as detailed below, suffer from three primary deficiencies: (1) Defendants either ignore the specification or take it out of context; (2) rely on conclusory testimony of an expert; and (3) provide analogies that are not germane to the issue or supported by the intrinsic or extrinsic record.

A. “INDIVIDUAL COLOR”

Plaintiff’s proposed construction of “individual color” is consistent with the specification and the Court’s prior proposed construction. ’435 Patent, 1:19-22; Document 84-2. Defendants’ argument lacks support from the intrinsic record and utilizes information that may or may not be part of its extrinsic sources.¹ Defendants chose not to submit a technology tutorial and appear to improperly include one in their responsive brief. Response at 3-6. The substance of Defendants’ argument is also disconcerting in that it displays a misunderstanding of how the patented invention operates. The ’435 is clear that each input image pixel is scanned to identify the plurality of input images pixels having the individual color whose hue or saturation was selected to be changed. ’435, Col. 10, lns. 9-24. Of particular note, the ’435 patent specification describes the preferred embodiment by a formula consistent with Plaintiff’s construction:

¹ Defendants include several pages of text, figures, and tables without any citation leaving Plaintiff without the ability to verify the accuracy, authenticity or admissibility of such information.

25 In case 1, where the independent red hue control delta
 value, H_r , or, the independent red saturation delta value, S_r ,
 of Step (b), is not equal to zero, there is identifying each
 input image pixel having red, R , as the individual color
 whose hue or saturation was selected to be independently
 30 changed, according to the following logical conditions:
 $R_{in} > [Arg + G_{in}]$ and $R_{in} > [Arb + B_{in}]$, where Arg and Arb are
 positive constants.

‘435 Patent, 10:25-32. The formula of the preferred embodiment identifies image pixels containing “the individual color...whose hue or saturation was selected to be independently changed.” ‘435 patent, 10:18-20. Further, the equation referenced in the last two lines shown above contains a set of consistent inequalities; each said set of consistent inequalities defined for selecting an individual color red. *Id.* These intrinsic disclosures are contrary to Defendants’ contention that “[h]owever, when read in the context of the whole patent and the definition of “individual color,” it is apparent that “case 1” refers to the linear combination (255, 0, 0), rather than the “individual basic color” (a.k.a. “color component”) named red. “Thus, “individual color” refers to “a linear” “combination of colors or color components,” not to an “individual basic color” or “color” “component.” Response at 8. Defendants’ statement is inconsistent with the patent and compounds the error of utilizing its unidentified extrinsic information instead of the plain language of the ‘435 Patent. As shown below, each input image pixel has color or color components represented by the terms R_{in} , G_{in} , and B_{in} .

For each input image pixel, $I[i,j]$, R_{in} , G_{in} , B_{in} , individual basic colors or color components, red, green, and blue, have color or color component values represented by the terms R_{in} , G_{in} , and B_{in} , respectively, and, individual complementary colors or color components yellow, cyan, and magenta, have color or color component values represented by the terms Y_{in} , C_{in} , and M_{in} , respectively. Color or color com-

Col. 7, Lns. 1-7.

Moreover, the equation shown above illustrates that if a pixel value contains enough red, then the pixel contains the individual color to be changed. Therefore, individual colors are expressed in terms of and evaluated from linear combinations of the color or color components, including for example “red.” Col. 7, Lns. 7-14.

B. “CHARACTERIZING”

Defendants have not met their burden to show by clear and convincing evidence that “characterizing” fails to inform one skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910 (2014). Despite Defendants’ assertions and their expert’s conclusory statements, the term “characterizing” is not indefinite and the specification, including the claims, provides more than sufficient guidance to inform a PHOSITA as to its scope. Defendants’ expert’s testimony should be accorded no weight because his declaration fails to meet the requirements of Federal Rule of Civil Procedure 26(b)(i)-(ii) let alone meeting the high burden required to invalidate a patent. Defendants’ primary argument is that it is unclear what “characterizing a real-time digital video input image” means. Response at 20. This ignores Plaintiff’s opening claim construction brief and its citations, particularly:

In Step (a) of the method of the present invention, there is receiving and characterizing a real time digital video input image.

Preferably, there is receiving a real time digital video input image, I, featuring colors or color components characterized by linear combinations of the basic colors red, green, and blue, in RGB color space, whereby the real time digital video input image, I, features basic colors red, green, and blue, and, complementary colors yellow, cyan, and magenta, in the RGB color space featuring a color based three-dimensional coordinate system. As previously

Col. 6, Lns. 40 – 50.

Column 6 continues discussing how the digital video input image, represented by the variable “I” is “characterized” according to Step(a). Col. 6, Lns. 47 – 57. Further, “for RGB color space, $I[i, jj: R_{in}, G_{in}, B_{in},]$ represents each of a plurality of input image pixels of the real time digital video input image, I, which can be plotted in an input grid of a real time digital video image display device, whose position coordinates in the input grid are indicated by row i, and column j.” Col. 6, Lns. 58-63. Even in light of this clear description, Defendants make the erroneous statement that the specification links “characterizing” to “colors or color components,” not to a “real time digital video image.” Response at 20. This is in clear contradiction to the disclosure, as displayed above, in column 6, lns. 40-67 and column 7, lns. 1-14, which details how a real time digital video input image is “characterized.”

C. “WITHOUT AFFECTING THE HUE OR THE SATURATION OF ANY OTHER INDIVIDUAL COLOR”

Plaintiff’s proposed construction is supported by the intrinsic evidence and also the same as identified in this Court’s Prior Proposed Constructions. Document 84-2 at 3. Despite Defendants’ argument to the contrary, it follows logically that because an “individual color” is required to be capable of being selected, then “other individual color” must also mean that which is capable of being selected but was not selected. Defendants’ argument uses examples of software programs and logos, which are inapplicable and are subject to different governing principles.

D. “ARBITRARY INTERVAL OF INTEGERS”

With regard to the term, “arbitrary interval of integers,” Defendants argue that the term should not be construed as “a range between two whole numbers” and tries to distinguish it from an interval. Response at 27. But the ‘435 patent specification discusses this very notion: “an extent or magnitude of change in hue or saturation, respectively of a selected individual color...represent a *finite increment...within respective ranges of hue and saturation...Without*

going into details of color theory and applications thereof, which are well known to those skilled in the art of video imaging and video image processing...” ‘435 patent, 8:53-67 (emphasis added).

In other words, a skilled artisan knows the acceptable range of control for hue or saturation. Claims 5 and 21 further elaborate on this concept and teach that it can be any whole number (arbitrary) within such an acceptable range.

E. “VIEWER”

Defendants’ purport to analyze this term in the context of the claim 17 discussion. Defendants, however, have not met their burden to show that the term “viewer” is necessarily a human or that it is indefinite as discussed in 1.F below.

F. “AS APPLIED TO CLAIM 17: THE COMBINATION OF METHOD STEPS AND SYSTEM ELEMENTS IN A SINGLE CLAIM: OPERATING SAID MASTER CONTROL DEVICE...; SELECTING AN INDEPENDENT COLOR HUE CONTROL DELTA VALUE OR AN INDEPENDENT COLOR SATURATION CONTROL DELTA VALUE . . .; IDENTIFYING A PLURALITY OF SAID INPUT IMAGE PIXELS . . .; DETERMINING CORRESPONDING OUTPUT IMAGE PIXEL VALUES...; DISPLAYING A REAL TIME DIGITAL VIDEO OUTPUT IMAGE...

Defendants’ have not met their burden to show that Claim 17 is indefinite. Claim 17 describes a system with functional capabilities that are tied to specific structures, and does not claim using the system as Defendants argue. As in *Yodlee*, Claim 17 describes what happens (i.e. the systems functional capabilities) after operating the master control device, and does not patent operating the master control device. *Yodlee, Inc. v. CashEdge, Inc.*, No. 05–01550, 2006 WL 3456610, at *4–6 (N.D. Cal. Nov. 29, 2006). Infringement occurs when a device having the capability of performing such functionality is manufactured or sold.

Further, the cases cited by Defendants are distinguishable. Defendants’ citation of *Ariba, Inc. v. Emptoris, Inc.*, is inapplicable as the court explained that this was not a situation where a device was claimed, but the step in question was operated by a different computer. *Ariba, Inc. v. Emptoris, Inc.*, 2008 WL 3482521, at *8 (E.D. Tex. Aug. 7, 2008), *aff’d*, No. 2009-1230, 2010

WL 55625 (Fed. Cir. Jan. 8, 2010). Here, the functional steps are all functions describing the claimed system. Additionally, *Rembrandt* is distinguishable as the functional language does not appear in isolation or at the end of the claim, but is specifically tied to structure, i.e. the “master control device” is used “for selecting to independently change the hue or the saturation of an individual color.” ‘435 Patent, Claim 17; *see also MasterMine Software, Inc. v. Microsoft Corp.*, 874 F.3d 1307, 1315-16 (Fed. Cir. 2017) (finding no indefiniteness because “[t]hough claim 8 includes active verbs—presents, receives, and generates—these verbs represent permissible functional language used to describe capabilities of the ‘reporting module’”); *Rembrandt Data Techs., LP v. AOL, LLC*, 641 F.3d 1331 (Fed. Cir. 2011).

Moreover, Defendants fail to address why viewer could not be additional structure for the user / human to control or explain why the specification requires the viewer to be a human. The user and the viewer cannot be seen as the same human operator of the device because the specification treats the two as distinct entities. Nothing cited by Defendants supports the notion that the user and the viewer are both the human operator. Further, the specific embodiment of a user (not the claimed viewer) pushing or turning a button or dial should not be read into the claims. “Particular embodiments and examples appearing in the specification will not generally be read into the claims.” *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988)).

Here, the Court must presume that the claims are valid unless Defendants presents clear and convincing evidence that a person having ordinary skill in the art could not reasonably determine the scope of the claims at issue. *See U.S. Gypsum Co. v. Nat’l Gypsum Co.*, 74 F.3d 1209, 1212 (Fed. Cir. 1996); *Shatterproof Glass Corp. v. Libbey-Owens Ford Co.*, 758 F.2d 613, 624 (Fed. Cir. 1985); *Aloft Media, LLC v. Microsoft Corp.*, No. 6:08-CV-50, 2009 WL 10677424,

at *5 (E.D. Tex. Mar. 24, 2009) (Unlike *Ariba*, the parties have not agreed that these claims require the action of a user outside the claimed system for infringement to occur). Rather, like many cases that have upheld the validity of claims, the language at issue describes the capabilities of the claimed inventions. See *Yodlee*, 2006 WL 3456610 at *4-6; *Toshiba Corp. v. Juniper Networks, Inc.*, CIV. 03-1035-SLR, 2006 WL 1788479, at *4 (D. Del. June 28, 2006); *Duhn Oil Tool, Inc. v. Cooper Cameron Corp.*, 474 F. Supp. 2d 1148, 1164 (E.D. Cal. 2007).

Finally, even if the Court rejects Lone Star's position on "viewer", Claim 17 does not claim activities performed by the user, but the claimed system's capability to received and respond to user selection. See *Freeny v. Fossil Grp., Inc.*, No. 218CV00049JRGRSP, 2019 WL 2078783, at *24 (E.D. Tex. May 10, 2019). Claim 17 describes the ability of the system to receive input from a user and denotes the system's response capabilities. Claim 17 is thus distinguishable from the claims in *IPXL* requiring "the user uses the input means". *IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377, 1384 (Fed. Cir. 2005). Claim 17 is also distinguishable from *In re Katz* requiring "wherein ... callers provide ... data." *In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1318 (Fed. Cir. 2011).

G. "INPUT IMAGE PIXEL"

Defendants' proposed construction is not supported by the intrinsic evidence. Defendants misapprehend Lone Star's argument and also the teaching of the '435 Patent. At no point did Lone Star argue "the pixels do not contain 'data'." Response at 11. Instead, Lone Star accurately points out that the term "input image pixel" should not include the limitation of "image data" as that particular phrase does not appear in the specification. Nor should this Court import other limitations into the term "input image pixel" such as "Red, Green, or Blue" or "integer" that are disclosed in the specification as embodiments. "Particular embodiments and examples appearing in the specification will not generally be read into the claims." *Comark*, 156 F.3d at 1187 (quoting

Constant, 848 F.2d at 1571); *see also Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005). Finally, Defendants’ for the first time in its responsive claim construction brief requests the Court “also consider whether that position also renders the claims indefinite, as it is not expected that one of ordinary skill would know how to provide light and color from a fractional physical pixel that does not fall within one of the rows or columns in the display.” Response at 12. Defendants did not disclose this position to Lone Star in its 4-2 or 4-3 disclosures and therefore it is improper to raise this argument now.²

H. “FORMING A CORRESPONDING PLURALITY OF OUTPUT IMAGE PIXELS HAVING SAID SELECTED INDIVIDUAL COLOR”

Defendants’ attempt to create a redundant and confusing construction is at odds with the purpose of claim construction. *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1567 (Fed. Cir. 1997) (“Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy.”); *see also O2 Micro Intern. Ltd. v. Beyond Innovation Tech. Co., Ltd.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) (“[D]istrict courts are not (and should not be) required to construe every limitation present in a patent’s asserted claims.”) (citing *U.S. Surgical*, 103 F.3d at 1568). Additionally, Defendants overlook the beginning of this claim term, which recites the limitations it seeks to import. *E.g.* Claim 1(d) (“determining corresponding output image pixel values for each of said plurality of said input image pixels identified as having said selected individual color in the real time digital video input image with the hue or the saturation selected to be independently changed.”). Incorporating Defendants’ proposed construction into claim 1(D) creates an absurd result.

² Plaintiff objects to, and reserves the right to move to strike, the new positions taken and new constructions offered, for the first time, by Defendants in this Responsive Claim Construction Brief.

I. “BY PERFORMING ARITHMETIC AND LOGICAL OPERATIONS”

Defendants again misconstrue the teachings of the ‘435 Patent. By performing arithmetic and logical operations is used for identifying input image pixels. For example:

In case 1, where the independent red hue control delta value, H_r , or, the independent red saturation delta value, S_r , of Step (b), is not equal to zero, there is identifying each input image pixel having red, R , as the individual color whose hue or saturation was selected to be independently changed, according to the following logical conditions:
 $R_{in} > [Arg + G_{in}]$ and $R_{in} > [Arb + B_{in}]$, where Arg and Arb are positive constants.

Col. 10, Lns. 25 – 32.

The above embodiment describes clearly that because either red hue or red saturation was selected to be changed that the input image pixels containing red are identified according to arithmetic and logical conditions. Further, and despite Defendants’ misinterpretations, the specification discusses “[i]n Step(c), there is identifying a plurality of input images pixels.” Col. 9, Lns. 34-35. The specification continues to define that arithmetic and logical operations can be selected “from the group consisting of addition, subtraction, multiplication, division, equal to, greater than, less than, absolute value of, and, combinations thereof.” Col. 9, Lns. 46-51. Finally, “[i]t is emphasized that this step is for identifying only, and not for changing or affecting, input image pixels.” Col. 9, Lns. 62-63. The specification is describing how input image pixels are identified, according to step (c), using arithmetic and logical operations and not for “changing or affecting.” Defendants’ argument is non-sensical and against the clear teaching of the ‘435 Patent. Defendants cannot cite to any portion of the intrinsic evidence that uses arithmetic and logical operations for changing or affecting according to 1(d) – the determining step. Defendants have not met their burden to show that the term is indefinite.

J. “EVALUATING” AND “EVALUATED”

Defendants conclusory statements fail to meet its high burden to prove indefiniteness. Moreover, Defendants again overlook the precise teachings of the ‘435 Patent that specifically discloses “evaluating” color control functions and provides numerous examples. See, e.g., ‘435 Patent, abstract, 11:41-55, 12:58-13:22, 16:11-47, 20:5-38, 23:11-45, 25:16-55 (describing evaluating color controls in the context of specific formula and algorithm embodiments). Defendants’ position here is particularly confusing when it compares the ‘435 patent disclosures to the formula for calculating the diameter of a circle. Response at 23. Defendants’ position appears to be that algorithmic disclosures coupled with a design choice creates an indefiniteness issue. This is not the standard. Further, Professor Stevenson’s conclusory statements that “the specification does not clarify or explain what this ‘evaluation’ means or entails” lacks credibility as the specification cites numerous embodiments and specific algorithms for the evaluating independent color control functions. Evaluating is used in this fashion consistently throughout the specification and is consistent with the claim language in, for example, claim 1(d).

II. CONCLUSION

For the reasons set forth above, Lone Star respectfully requests that its proposed claim constructions be adopted, and for such other and further relief to which it may show itself entitled.

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Respectfully submitted,

/s/Bradley D. Liddle

Bradley D. Liddle
Texas Bar No. 24074599
bliddle@carterarnett.com
Minghui Yang
Texas Bar No. 24091486
myang@carterarnett.com
Laura Maninger
Texas Bar No. 24106245
lmaninger@carterarnett.com
CARTER ARNETT PLLC
8150 N. Central Expressway, Suite 500
Dallas, Texas 75206
Telephone: No.: (214) 550-8188
Facsimile No.: (214) 550-8185

John D. Saba, Jr.
Texas State Bar No. 24037415
john@wittliffcutter.com
WITTLIFF | CUTTER, PLLC
1209 Nueces St.
Austin, Texas 78701
Telephone: No.: (512) 960-4438
Facsimile No.: (512) 960-4869

John Lee (admitted to E.D. Texas)
California Bar No. 229911
jlee@banishlaw.com
BANIE & ISHIMOTO LLP
3705 Haven Ave. #137
Menlo Park, CA 94025
Telephone: No.: (650) 241-2771
Facsimile No.: (650) 241-2770

**ATTORNEYS FOR PLAINTIFF LONE
STAR TECHNOLOGICAL
INNOVATIONS, LLC**

CERTIFICATE OF SERVICE

I certify this document was filed electronically pursuant to Local Rule CV-5(a) on May 13, 2020. Pursuant to Local Rule CV-5(a), this electronic filing acts to electronically serve all counsel who have consented to electronic service via the Court's CM/ECF system. Any other counsel of record will be served by electronic mail.

/s/ Bradley D. Liddle